Additional Task

Name:Shaik Khaja Basha
Batch : Batch 11
Date   : 23.07.2025
Task   : state file recovery

1. **What are the step take care if suppose I don't want to lose my state file what are the major thing will you take care in Terraform**

Ans: Regular Backups

- Configure versioning on your remote state bucket
- Take manual snapshots before major operations (`terraform state pull > backup.tfstate`)

Access Control

- Restrict permissions to the state file
- Use IAM policies to limit who can read/modify the state

Workspace Isolation

- Use Terraform workspaces to separate state for different environments
- Prevents accidental cross-environment modifications

Enable State Locking

- Prevent concurrent operations that could corrupt state
- For S3 backend, use DynamoDB for locking:

```
terraform {
  backend "s3" {
    bucket         = "my-terraform-state-bucket"
    key            = "path/to/my/state.tfstate"
    region         = "us-east-1"
    dynamodb_table = "terraform-locks"
  }
}
```

Use Remote Backend Storage

- Configure a remote backend like S3, Azure Blob Storage, or Google Cloud Storage
- Example for AWS S3:

```
terraform {

  backend "s3" {

    bucket = "my-terraform-state-bucket"

    key    = "path/to/my/state.tfstate"

    region = "us-east-1"

  }

}
```

Regular State Validation

- o   Periodically run terraform plan to verify state matches actual infrastructure

- o   Use terraform state list to audit managed resources

There are the steps take care for not getting lost of state file